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REMARKS

Applicant is filing herewith a Request for Continued Examination with the associated fees. Applicant requests entry and consideration of the amendments presented herein and believes that the claims as herein amended are patentably distinct over the art of record. Applicant appreciates the Examiner's extensive comments in the Advisory Action of January 17, 2006. In an effort to expedite the Examiner's review of the claims as amended herein, Applicant offers the following remarks with respect to the outstanding rejections.

Claims 1-29 are pending in the present application. In the Final Office Action mailed November 1, 2005, the Examiner rejected claims 18-24 under 35 U.S.C. §112, second paragraph, as being indefinite. Claim 18 has therefore been amended. As such, Applicant believes that the §112, second paragraph rejection is overcome.

The Examiner also rejected claims 1-3, 6, 10, 12, 18, 19, 23, 24, 25, 27, 28, and 29 under 35 U.S.C. §102(b) as being anticipated by Duffy et al (USP 5,685,680). Claims 1-3, 6, 7, 10, 12, 16, 18, 19, 23, 24, 25, 27, 28 and 29 also stand rejected under 35 U.S.C. §102(b) as being anticipated by Irmies (USP 5,493,833). Claims 4, 5, 8, 9, 11, 13, 14, 15, 16, 17, 20-22 and 26 stand rejected under 35 U.S.C. §103(a) as being unpatentable over Duffy et al in view of Rohe (USP 2,784,758).

In the Advisory Action of January 17, 2006, the Examiner asserted that, in its broadest sense, a "recess" as called for in the claims is disclosed in Irmies because the Irmies welding stud includes a recess to hold the flux capsule. The Examiner questioned that "It is not understood how Irmies [sic] would not suggest the embodiment found in the instant figure 12." Although Applicant appreciates the Examiners' considered review of the claims with respect to that which is shown in the Figures, there appears to be a fundamental misunderstanding between what is called for in the claims and that which is shown in the Figures. The claims may not read on every embodiment disclosed. That which is shown in Figs. 12 and 13 is merely exemplary of one embodiment of the present invention. That particular embodiment of the present invention includes a flux capsule which is usable with any of the weld end configurations shown in Figs. 3 to 11. The Specification further discloses the interrelation of that which is shown in Figs. 12 and 13 to the embodiments shown in 3-11. The Specification states that "flux capsule 122 could be incorporated into any/each of the previously disclosed welding studs in order to achieve the benefits of having a flux introduced into a weld." Specification, pg. 11, first paragraph. That is, the welding

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stud of Figs. 12 and 13 is exemplary of a flux capsule enabled welding stud and the flux capsule shown therein can be integrated with any of the welding studs shown in Figs. 3-11. Accordingly, while the current claims may not read on the embodiment shown in Figs. 12 & 13, that embodiment can be used to modify that shown in Figs 3-11.

In order to more clearly define the present invention, Applicant has herein amended the claims. Applicant has amended the claims to further define the weld end of the welding stud. For example, claim 1 now defines a center of the weld face and places the at least one hollow recess formed in the weld face away from the central point of the welding stud. Clearly, such a construction is not shown in the art of record. Furthermore, that which is called for in the claims should not be reduced to any one embodiment shown in the Figures,

As shown in Fig. 3 of Irimes and Fig. 3 of Duffy et al., the welding studs thereof include a solid faced weld end between the alleged "recess" occupied by the flux insert and the perimeter of the weld end of the weld studs thereof. Applicant previously argued that these references really do not have any such recess because what the Examiner refers to as a recess is actually not a recess at all since it is filled with flux. By definition, such cannot be a recess. Nevertheless, Applicant has now expressly set forth that the recess of claim 1 is hollow. The only "recess" of the welding studs of Irimes and Duffy et al. is occupied by the flux insert of the welding stud. That is, the welding stud does not have a hollow recess but the welding stud is generally solid and formed of two dissimilar materials – i.e. the body of the stud and the flux. There is simply no disclosure or suggestion in the art of record for a welding stud as defined by the present claims. Applicant has amended claims 10, 18, 25, 28, and 29 to further clarify that which is called for therein. Applicant believes that the amendments thereto patentably distinguish the present invention over the art of record.

The Examiner further maintains that Rohe "would suggest to those having ordinary skill in the art, employing concentric annular 'ridges' at the weld end of a weld stud so as to 1) enable the stud to be welded to thin substrates, 2) provide a means for locating, 3) centralize and localize welding current in a dispersed and even manner, and 4) concentrate the welding temperature at the ridges, whether or not these inherent advantages are disclosed in the Rohe reference alone." Although Applicant appreciates the Examiner's extensive case citation in the Advisory Action of January 17, 2006, the fact remains that "[o]bviousness can only be established by combining or modifying the teachings of the prior art to produce the claimed invention where there is some teaching, suggestion, or motivation to do so found

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either explicitly or implicitly in the references themselves or in the knowledge generally available to one of ordinary skill in the art." MPEP § 2143.01. "The fact that references can be combined or modified is not sufficient to establish *prima facie* obviousness." *Id.* When prior art references require a selected combination to render obvious a subsequent invention, there must be some reason for the combination other than the hindsight gained from the invention itself, i.e., something in the prior art as a whole must suggest the desirability, and thus the obviousness, of making the combination. *Uniroyal Inc. v. Rudkin-Wiley Corp.*, 837 F.2d 1044, 5 U.S.P.Q.2d 1434 (Fed. Cir. 1988).

To establish a *prima facie* case of obviousness, three basic criteria must be met. First, there must be some suggestion or motivation, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art, to modify the reference or to combine reference teachings. Second, there must be a reasonable expectation of success. Finally, the prior art reference (or references when combined) must teach or suggest all the claim limitations. MPEP §2143. The art of record is simply insufficient to render the present claims obvious thereby. Applicant agrees that Rohe discloses a welding nut having a pair of grooves therein, however, the only portion of the weld nut that is welded to a workpiece, thereby forming a weld face, is the small area defined as the weld bead 18. As shown in Fig. 2 of Rohe, the face of weld bead 18 is planar. Rohe discloses that grooves 17 and 17' merely receives the excess weld metal generated during the welding of that small area defined as weld bead 18. *See* Rohe, col. 3, lns. 23-25. As shown in Fig. 4, only the "weld bead 18" is welded to a skin sheet 7. Rohe further discloses a function of the non-welded shoulders 16, 16' as distributing the load of the welded end of the fastener across the sheet in a load bearing manner. *See* Rohe, col. 2, lns. 58-61.

To conclude that one of ordinary skill in the art would interpret the shoulder and groove construction of end flange 14 to "centralize and localize welding current in a dispersed and even manner" and/or "concentrate the welding temperature at the ridges" is not only beyond the express teachings of the reference, it is well beyond what could even be reasonably implied therefrom. The only portion of the welding nut that is welded to a workpiece is the small area defined by the weld bead 18. It must be recognized that it is not the entirety of end flange 14 that is welded to a workpiece. Further, there is no disclosure to localize the weld current across weld bead 18 and shoulders 16, 16' of Rohe.

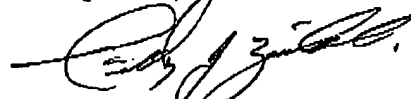
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The art of record, individually or in combination, does not teach, disclose, or suggest a welding stud as defined by the claims herein. Therefore, in light of at least the foregoing, Applicant respectfully believes that the present application is in condition for allowance. As a result, Applicant respectfully requests timely issuance of a Notice of Allowance for claims 1-29.

Applicant appreciates the Examiner's consideration of these Amendments and Remarks and cordially invites the Examiner to call the undersigned, should the Examiner consider any matters unresolved.

Respectfully submitted,



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